

Claims

- [c1] 1. A conveyor comprising:
- a conveyor belt in the form of a loop and extending in thickness from an outer side to an inner side, the conveyor belt including rollers having salient portions extending beyond the inner and outer sides of the conveyor belt;
 - a first drive coupled to the conveyor belt to drive the conveyor belt along a conveying path in a direction of belt travel at a first speed;
 - a drive belt disposed within the loop of the conveyor belt and having an outside surface in frictional contact with the salient portions of the rollers extending beyond the inner side of the conveyor belt along an article-conveying segment of the conveying path;
 - a second drive coupled to the drive belt to drive the drive belt in or opposite to the direction of belt travel at a second speed.
- [c2] 2. A conveyor as in claim 1 wherein the first speed and the second speed are adjustable.
- [c3] 3. A conveyor as in claim 1 wherein the first speed and the second speed are different speeds.

- [c4] 4. A conveyor as in claim 1 wherein the second speed is greater than the first speed.
- [c5] 5. A conveyor as in claim 1 wherein the second speed is twice the first speed.
- [c6] 6. A conveyor as in claim 1 wherein the second speed is zero.
- [c7] 7. A conveyor as in claim 1 wherein the second drive may be idled to disable the driving of the drive belt.
- [c8] 8. A conveyor as in claim 1 wherein the second speed varies as a function of the first speed.
- [c9] 9. A conveyor as in claim 1 wherein the conveyor belt comprises a roller-top modular conveyor belt.
- [c10] 10. A conveyor as in claim 1 wherein the drive belt comprises a flat friction-top modular conveyor belt.
- [c11] 11. A conveyor comprising:
 - an outer belt loop having embedded rollers protruding from the outer belt loop past opposite inner and outer sides of the outer belt loop;
 - an inner belt loop disposed inside the outer belt loop and having an outer surface contacting the rollers protruding past the inner side of the outer belt loop

along a conveying segment of the outer belt loop;
means for driving the outer belt loop and the inner
belt loop in the same direction or in opposite direc-
tions at first and second speeds.

[c12] 12. A conveyor as in claim 11 wherein the means for driving includes a first drive for driving the outer belt loop at the first speed and a second drive for driving the inner belt loop at the second speed.

[c13] 13. A conveyor as in claim 12 wherein the second drive may be idled to disable the driving of the rollers in the outer belt.

[c14] 14. A conveyor as in claim 11 wherein the means for driving includes a first drive for driving the outer belt loop at the first speed and a second drive for driving the inner belt loop at the second speed in the same direction as the outer belt loop.

[c15] 15. A conveyor as in claim 11 wherein the first speed and the second speed are adjustable.

[c16] 16. A conveyor as in claim 11 wherein the first speed and the second speed are different speeds.

[c17] 17. A conveyor as in claim 11 wherein the second speed is greater than the first speed.

- [c18] 18. A conveyor as in claim 11 wherein the second speed is twice the first speed.
- [c19] 19. A conveyor as in claim 11 wherein the second speed varies as a function of the first speed.
- [c20] 20. A conveyor as in claim 11 wherein the outer belt comprises a roller-top modular conveyor belt.
- [c21] 21. A conveyor as in claim 11 wherein the inner belt comprises a flat friction-top modular conveyor belt.
- [c22] 22. A conveyor comprising:
a roller-top belt arranged to travel in a first loop and having rollers extending beyond inner and outer sides of the first loop formed by the roller-top belt;
a drive belt arranged to travel in a second loop inside the first loop and having an outer surface positionable into driving contact with the rollers of the roller-top belt along a portion of the inner side of the first loop.
- [c23] 23. A conveyor as in claim 22 wherein the roller-top belt includes axles about which the rollers rotate.
- [c24] 24. A conveyor as in claim 22 wherein the rollers are made of a high-friction material.

[c25] 25. A conveyor as in claim 22 wherein the outer surface of the drive belt is a high-friction material.